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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/549,360	09/14/2005	Kazuyuki Miyata	PTB-1207-120	5536

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EXAMINER

PILKINGTON, JAMES

ART UNIT	PAPER NUMBER
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3656

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09/17/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/549,360	Applicant(s) MIYATA ET AL.	
	Examiner JAMES PILKINGTON	Art Unit 3656	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 September 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 April 2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 and 6-14 rejected under 35 U.S.C. 103(a) as being unpatentable over JP2002-257146 (US equivalent Ueno, USP 6,918,701 used in discussion below), in view of Kellam, USP 7,000,909.

Regarding claim 1, Ueno discloses a strut sliding bearing comprising:

- an upper casing (3) made of a synthetic resin (C4/L10) and having an annular lower surface (39);
- a lower casing (2) which is made of a synthetic resin (C4/L10), is superposed on said upper casing (3) so as to be rotatable about an axis of said upper casing (center of assembly),
- an annular upper surface (14) opposed to the annular lower surface (39) of said upper casing (3);
- an annular thrust sliding bearing piece (4) which is made of a synthetic resin (C4/L13-14), and is interposed between the annular lower surface (39) of the upper casing and the annular upper surface (14) of the lower casing, said annular thrust sliding bearing piece (4) having an upper surface (surface of 74) which is in slidable contact with the annular lower

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surface of the upper casing, and a lower surface (surface of 73) which is in slidable contact with the annular upper surface of the lower casing,

- wherein said lower casing (2) has on a lower surface (84) thereof a spring seat surface for a suspension coil spring (holds seat plate 86)
- wherein said lower casing (2) includes an annular base portion (84); an upper cylindrical portion (13) which is integrally formed on a radially substantially central portion of an upper surface of the annular base portion (84) and on which the annular upper surface (14) is formed; and a lower cylindrical portion (86) formed integrally on a radially substantially central portion of a lower surface of the annular base portion (84), the lower surface of the annular base portion on a radially outer side of the lower cylindrical portion serving as the spring seat surface
- the annular base portion, the upper cylindrical portion, and the lower cylindrical portion include a plurality of thinning cavities (at 19 and 61)

Ueno does not disclose that the thinning cavities open externally at said lower surface of the annular base portion.

Kellam teaches a strut bearing assembly wherein the lower casing (9) that comprises thinning cavities in both the upper surface (see Figure 2, left and right of sealing arms or a the base of the sealing arms in Figures 4-16) and lower surface (2 cutouts in the base of 9 creating 3 fingers), the thinning cavities in the lower surface of an annular base portion (bottom of 9 with the fingers) open externally at said lower surface of the annular base portion for the purpose of providing a bearing shape which

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provides for axial and radial load-carrying capacity and eliminates side movement of the bearing and fouling of the lower casing (column 1, lines 35-44).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Ueno and provide for thinning cavities open externally at said lower surface of the annular base portion, as taught by Kellam, for the purpose of providing a bearing shape which provides for axial and radial load-carrying capacity and eliminates side movement of the bearing and fouling of the lower casing.

Regarding claim 2, Ueno discloses a tubular radial sliding bearing piece (5), wherein said upper casing (3) includes an upper annular portion (38) on which the annular lower surface (39) is formed and a cylindrical portion (37) extended integrally downward from a radially inner peripheral edge of the upper annular portion (38) and having a cylindrical side surface (36), said lower casing (2) having a cylindrical side surface (11) opposed to the cylindrical side surface (36) of the upper casing (3), said radial sliding bearing piece (5) being interposed between the cylindrical side surface (36) of the cylindrical portion (37) of said upper casing (3) and the cylindrical side surface (11) of said lower casing (2).

Regarding claim 3, Ueno discloses that said lower casing (2) includes an inner peripheral-side cylindrical projecting portion (16) integrally projecting upward from the annular upper surface (14) on a radially inner peripheral side and an outer peripheral-side cylindrical projecting portion (15) integrally projecting upward from the annular upper surface (14) on a radially outer peripheral side, said thrust sliding bearing piece

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(4) being disposed between the inner peripheral-side cylindrical projecting portion (14) and the outer peripheral-side cylindrical projecting portion (15).

Regarding claim 4, Ueno discloses that said upper casing (3) includes an inner peripheral-side cylindrical suspended portion (52) integrally suspended downward from a radially inner peripheral side of the annular lower surface (39) and an outer peripheral-side cylindrical suspended portion (40) integrally suspended downward from a radially outer peripheral side of the annular lower surface (39), said thrust sliding bearing piece (4) being disposed between the inner peripheral-side cylindrical suspended portion (52) and the outer peripheral-side cylindrical suspended portion (40).

Regarding claim 6, Ueno discloses that said upper casing (3) includes an upper annular portion (38) on which the annular lower surface (39) is formed and a cylindrical portion extended (41) integrally downward from a radially outer peripheral edge of the upper annular portion (39).

Regarding claim 7, Ueno discloses a tubular radial sliding bearing piece (5), wherein the upper cylindrical portion of said lower casing (2) having a cylindrical side surface (11) opposed to the cylindrical side surface (36) of the cylindrical portion of said upper casing (3), said radial sliding bearing piece (5) being interposed between the cylindrical side surface (36) of the cylindrical portion (37) of said upper casing (3) and the cylindrical side surface (11) of said lower casing (2).

Regarding claims 8, 10, 11, and 12, Ueno discloses that the [reinforced] synthetic resin used to make the bearings and casing includes at least one of polyacetal resin,

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polyamide resin, thermoplastic polyester resin, polyolefin resin, and fluororesin (C4/L9-36).

Regarding claim 9, Ueno discloses that said upper casing is adapted to be resiliently fitted and secured to said lower casing (adapted via 45 and 17)

Regarding claims 13 and 14, Ueno discloses that the bearing is used in a four-wheeled motor vehicle (see column 1, lines 8-12) and a suspension coil spring (85) seated at one end thereof on a spring seat surface of said lower casing.

Response to Arguments

Applicant's arguments filed September 8, 2010 have been fully considered but they are not persuasive.

The Applicant argues that Ueno does not disclose that the upper cylindrical portion is integrally formed on a radially substantially central portion of an upper surface of the annular base portion.

Ueno discloses that the upper cylindrical portion which is element 13, particularly the region with the surface 14, this portion is integrally formed on a radially substantially central portion of an upper surface of the base since the since it is arranged radially inward from the radially outer end of the lower base.

The Applicant argues that Ueno does not disclose that the lower cylindrical portion is integrally formed on a radially substantially central portion of a lower surface of the annular base.

The lower cylindrical portion of Ueno is element 86 which is integrally formed with the base since the definition of integrally only requires that that the components be

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connected and not necessarily one-piece, see *In re Larson et al* 144 USPQ 347.

Element 86 contacts the radially substantially central portion of the lower surface of the base since the inner most portion of element 86 contacts the main body of the base at a radial position inside of the end of the base in the same manner as the upper surface is arranged radially inward as argued above.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES PILKINGTON whose telephone number is (571)272-5052. The examiner can normally be reached on Monday - Friday 7-3.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on (571)272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JAMES PILKINGTON/
Examiner, Art Unit 3656
9/14/10

/Thomas R. Hannon/
Primary Examiner, Art Unit 3656